

## ABSTRACT

An object tracking system for locating radio-tagged objects within a monitored environment has a plurality of tag transmission readers that detect RF transmissions from the tags, and generate output signals representative of the time-of-arrival of first-to-arrive tag transmissions. An object location processor processes the first to arrive signals in accordance with a multilateration algorithm to geolocate a tag. In order to modify the operation of a tag that comes within a prescribed region of the monitored environment (such as passing through a doorway), one or more relatively short range, magnetic field proximity-based, tag-programming 'pingers' are placed proximate to the region. A magnetic field receiver on the tag detects the field generated by the pinger and causes the tag to change operation such as increase its RF transmission rate.